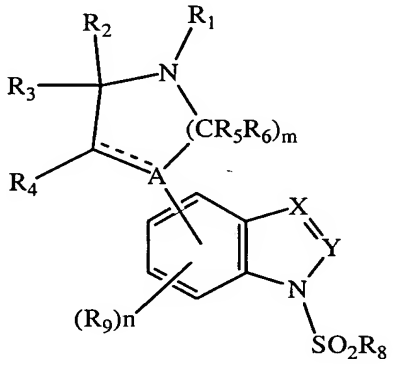
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula I



(I)

wherein

A is ~~C, CR_{10} or~~ N;

X is CR_{11} ~~or N~~;

Y is CR_7 ~~or N with the proviso that when X is N, then Y must be CR_7~~;

R_1 is H, C_1-C_6alkylcarbonyl, C_1-C_6alkylcarbonyloxy or an C_1-C_6alkyl, C_1-C_6alkenyl, C_1-C_6alkynl or cycloheteroalkyl group each optionally substituted;

R_2, R_3, R_4, R_5 and R_6 are each independently H, halogen, OH or an optionally substituted C_1-C_6alkyl group;

R_7 and R_{11} are each independently H, halogen or an C_1-C_6alkyl, aryl, heteroaryl or C_1-C_6alkoxy group each optionally substituted;

R_8 is an C_1-C_6alkyl, aryl or heteroaryl group each optionally substituted;

R_9 is H, halogen or an C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6alkenyl, aryl or heteroaryl group each optionally substituted;

R_{10} is H, OH or an optionally substituted C_1-C_6alkoxy group;

m is an integer of [[1,]] 2 or 3;

n is 0 or an integer of 1, 2 or 3; and

---- represents a single bond ~~or a double bond~~; or a pharmaceutically acceptable salt thereof.

2. (Currently Amended) The compound according to claim 1 wherein ~~A is N and~~ m is 2.

3. (Original) The compound according to claim 1 wherein R_8 is an optionally substituted phenyl group.

4. (Original) The compound according to claim 1 wherein R_2, R_3, R_4, R_5 and R_6 are H.

5. (Original) The compound according to claim 2 wherein R_1 is H or a C_1-C_6alkyl or cycloheteroalkyl group each optionally substituted.

6. (Currently Amended) The compound according to claim 5 selected from the group consisting of:
1-(phenylsulfonyl)-4-piperazin-1-yl-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(3,4-dimethoxyphenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-bromothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4,5-dichlorothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
methyl 4-[(4-piperazin-1-yl-1H-indol-1-yl)sulfonyl]phenyl ether;
4-piperazin-1-yl-1-{[4-(trifluoromethoxy)phenyl]sulfonyl}-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-(phenylsulfonyl)-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(2-bromophenyl)sulfonyl]-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1H-indole;

4-(4-benzylpiperazin-1-yl)-1-[(3,4-dimethoxyphenyl)sulfonyl]-1H-indole;

4-[4-(3-methoxybenzyl)piperazin-1-yl]-1-(phenylsulfonyl)-1H-indole;

1-(phenylsulfonyl)-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;

1-(phenylsulfonyl)-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-[4-(3-methoxybenzyl)piperazin-1-yl]-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;

~~1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;~~

~~1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;~~

~~1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~

~~1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~1-[(5-bromothien-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~

~~1-[(5-bromothien-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~

~~1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~methyl-4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;~~

~~1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;~~

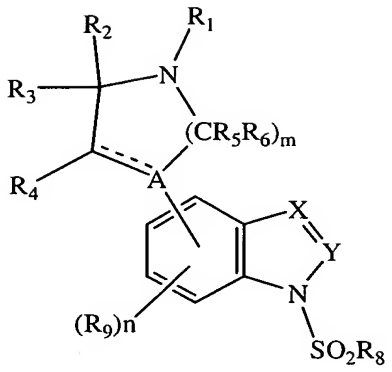
~~1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;~~

~~1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;~~

~~1-phenylsulfonyl-4-[4-(3-phenylpropyl)-piperazin-1-yl]-1H-indazole~~; and

the pharmaceutically acceptable salts thereof.

7. (Currently Amended) A method for the treatment of a disorder of the central nervous system related to or affected by the 5-HT6 receptor in a patient in need thereof which comprises administering to said patient a therapeutically effective amount of a compound of formula I.



(I)

wherein

A is ~~C, CR_{10} or~~ N;

X is CR_{11} ~~or N~~;

Y is CR_7 ~~or N with the proviso that when X is N, then Y must be CR_7~~;

R_1 is H, C_1-C_6alkylcarbonyl, C_1-C_6alkylcarbonyloxy or an C_1-C_6alkyl, C_1-C_6alkenyl, C_1-C_6alkynl or cycloheteroalkyl group each optionally substituted;

R_2, R_3, R_4, R_5 and R_6 are each independently H, halogen, OH or an optionally substituted C_1-C_6alkyl group;

R_7 and R_{11} are each independently H, halogen or an C_1-C_6alkyl, aryl, heteroaryl or C_1-C_6alkoxy group each optionally substituted;

R_8 is an C_1-C_6alkyl, aryl or heteroaryl group each optionally substituted;

R_9 is H, halogen or an C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6alkenyl, aryl or heteroaryl group each optionally substituted;

R_{10} is H, OH or an optionally substituted C_1-C_6alkoxy group;

m is an integer of [[1,]] 2 or 3;

n is 0 or an integer of 1, 2 or 3; and

---- represents a single bond ~~or a double bond~~; or

a pharmaceutically acceptable salt thereof.

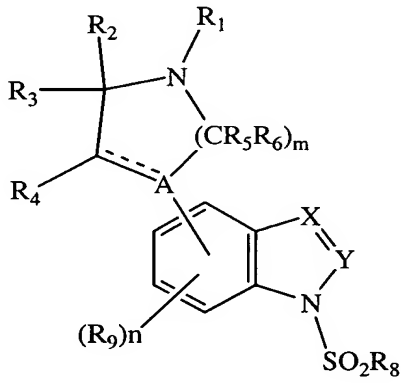
8. (Original) The method according to claim 7 wherein said disorder is a motor disorder, anxiety disorder or cognitive disorder.

9. (Original) The method according to claim 7 wherein said disorder is schizophrenia or depression.

10. (Original) The method according to claim 8 wherein said cognitive disorder is a neurodegenerative disorder.

11. (Original) The method according to claim 10 wherein said neurodegenerative disorder is Alzheimer's disease or Parkinson's disease

12. (Currently Amended) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I.



(I)

wherein

A is ~~C, CR_{10} or~~ N;

X is CR_{11} ~~or N~~;

Y is CR_7 ~~or N with the proviso that when X is N, then Y must be CR_7~~;

R_1 is H, C_1-C_6alkylcarbonyl, C_1-C_6alkylcarbonyloxy or an C_1-C_6alkyl, C_1-C_6alkenyl, C_1-C_6alkynl, or cycloheteroalkyl group each optionally substituted;

R_2, R_3, R_4, R_5 and R_6 are each independently H, halogen, OH or an optionally substituted C_1-C_6alkyl group;

R_7 and R_{11} are each independently H, halogen or an C_1-C_6alkyl, aryl, heteroaryl or C_1-C_6alkoxy group each optionally substituted;

R_8 is an C_1-C_6alkyl, aryl or heteroaryl group each optionally substituted;

R_9 is H, halogen or an C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6alkenyl, aryl or heteroaryl group each optionally substituted;

R_{10} is H, OH or an optionally substituted C_1-C_6alkoxy group;

m is an integer of [[1,]] 2 or 3;

n is 0 or an integer of 1, 2 or 3; and

---- represents a single bond ~~or a double bond~~; or

a pharmaceutically acceptable salt thereof.

13. (Currently Amended) The composition according to claim 12 wherein ~~A is N and~~ m is 2.

14. (Original) The composition according to claim 12 wherein R_8 is an optionally substituted phenyl group.

15. (Original) The composition according to claim 12 wherein R_2, R_3, R_4, R_5 and R_6 are H.

16. (Original) The composition according to claim 13 wherein R_1 is H or a C_1-C_6alkyl or cycloheteroalkyl group each optionally substituted.

17. (Currently Amended) The composition according to claim 16 having a compound of formula I selected from the group consisting of:

1-(phenylsulfonyl)-4-piperazin-1-yl-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(3,4-dimethoxyphenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(4-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(5-bromothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(4,5-dichlorothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;

methyl 4-[(4-piperazin-1-yl-1H-indol-1-yl)sulfonyl]phenyl ether;

4-piperazin-1-yl-1-{[4-(trifluoromethoxy)phenyl]sulfonyl}-1H-indole;

4-(4-benzylpiperazin-1-yl)-1-(phenylsulfonyl)-1H-indole;

4-(4-benzylpiperazin-1-yl)-1-[(2-bromophenyl)sulfonyl]-1H-indole;

4-(4-benzylpiperazin-1-yl)-1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1H-indole;

4-(4-benzylpiperazin-1-yl)-1-[(3,4-dimethoxyphenyl)sulfonyl]-1H-indole;

4-[4-(3-methoxybenzyl)piperazin-1-yl]-1-(phenylsulfonyl)-1H-indole;

1-(phenylsulfonyl)-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;

1-(phenylsulfonyl)-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-[4-(3-methoxybenzyl)piperazin-1-yl]-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;

~~1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;~~

~~1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;~~

~~1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~

~~1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~1-[(5-bromothien-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~

~~1-[(5-bromothien-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~

~~1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~

~~methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;~~

~~1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;~~

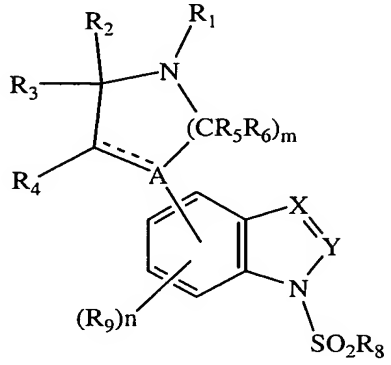
~~1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;~~

~~1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;~~

~~1-phenylsulfonyl-4-[4-(3-phenylpropyl)-piperazin-1-yl]-1H-indazole~~; and

the pharmaceutically acceptable salts thereof.

18. (Currently Amended) A method for the preparation of a compound of formula I.



(I)

wherein

A is ~~C, CR_{10} or~~ N;

X is CR_{11} ~~or N~~;

Y is CR_7 ~~or N with the proviso that when X is N, then Y must be CR_7~~;

R_1 is C_1-C_6alkylcarbonyl, C_1-C_6alkylcarbonyloxy or an C_1-C_6alkyl, C_1-C_6alkenyl, C_1-C_6alkynl or cycloheteroalkyl group each optionally substituted;

R_2, R_3, R_4, R_5 and R_6 are each independently H, halogen, OH or an optionally substituted C_1-C_6alkyl group;

R_7 and R_{11} are each independently H, halogen or an C_1-C_6alkyl, aryl, heteroaryl or alkoxy group each optionally substituted;

R_8 is an C_1-C_6alkyl, aryl or heteroaryl group each optionally substituted;

R_9 is H, halogen or an C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6alkenyl, aryl or heteroaryl group each optionally substituted;

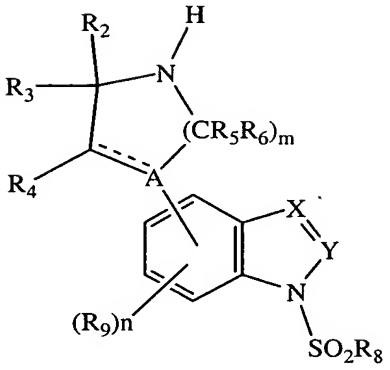
R_{10} is H, OH or an optionally substituted C_1-C_6alkoxy group;

m is an integer of [[1,]] 2 or 3;

n is 0 or an integer of 1, 2 or 3; and

---- represents a single bond ~~or a double bond~~

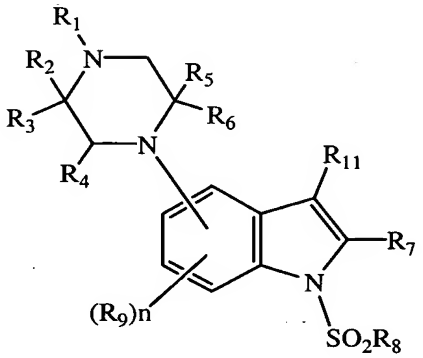
said method which comprises reacting a compound of formula Ia



(Ia)

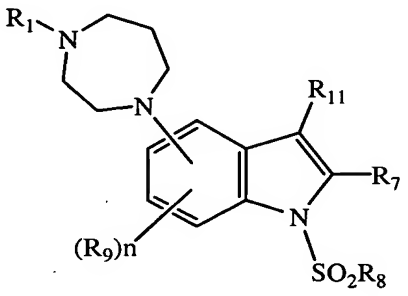
wherein A, X, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, m and n are as defined hereinabove for formula I with a compound R_1-Hal wherein R_1 is as defined hereinabove for formula I and Hal is Cl, Br or I.

19. (New) A compound according to claim 1 having the structure



wherein the piperazinyl moiety is attached to the 4- or 5-position of the indole ring.

20. (New) A compound according to claim 1 having the structure



wherein the homopiperazinyl moiety is attached to the 4- or 5-position of the indole ring.